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Playful Learning Landscapes metrics framework

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Playful Learning Landscapes (PLL) marries developmental science with placemaking to address learning inequalities by extending education into the public realm. By infusing educational elements into places where families regularly go—such as bus stops, parks, and supermarkets—PLL transforms everyday spaces into learning hubs that encourage the development of healthy children, families, and communities.

The "Playful Learning Landscapes metrics framework" is designed to help city-level policymakers, community organizations, the private sector, and philanthropies evaluate the positive effects of PLL on learning outcomes, as well as enhancements to social interaction and public life in revitalized spaces. The framework will help generate data that are critical for scaling PLL by defining the desired outcomes of playful learning in public and shared spaces—and most importantly—how they are measured.[1]

As communities test the expansion and adaptation of PLL on a neighborhood- and/or city-wide level, this framework will evolve with the new learnings.

The five goals:

Promote healthy child development and learning: Sparks playful and meaningful experiences that support child-caregiver interactions known to promote cognitive and social-emotional learning and positive development.

Support an accessible and welcoming public realm: Offers a physical space that is easy and convenient to access, feels safe and inviting to visitors, and reflects community cultures and values.

Foster a vibrant and inclusive social environment: Cultivates an engaging public realm that promotes social interaction among children and adults of all incomes and backgrounds.

Nurture civic engagement and strong sense of community: Builds neighborhood pride and community cohesion through the cocreation and ongoing oversight of PLL sites.

Strengthen the economic health and resiliency of neighborhoods: Has a positive impact on the surrounding community, including local businesses, property owners, and residents.

[1] Note that not all the signals and metrics in this framework will apply to every PLL site. For example, measuring how long people spend at a site may not be relevant for a bus stop or supermarket given the nature of the space.

Goal: Promote healthy child development and learning

Signal: Child and caregiver interaction

Metric	Description	Source
Conversational turns	The amount of back and forth exchanges between the caregiver and child and/or between children. Coding breaks turns into 4 levels (high, moderate, low, and none). Reported as the percentage of high, moderate, low and no interactions.	Observation
Valence of interaction	Overall effect of the interaction (positive, neutral, or negative). Reported as the percentage of positive (smiling, positive tone of voice), neutral (verbal discussions without much emotion) and negative (frowning, harsh tone of voice) interactions.	Observation
Following caregiver or child focus	Involves the child and caregiver paying attention to the same item (e.g., pointing or verbally addressing the same object). Reported as the median of the number of times "following the focus" occurs during an interaction.	Observation

Signal: Language development and literacy

Metric	Description	Source
Talk about literacy or storytelling skills	Any language that builds storytelling or literacy skills ("B says "b, b, b."). Reported as percentage of children and adults using specified language.	Observation

Note: This signal is applicable only for installations designed to target language development and literacy skills.

Signal: STEM literacy

Metric	Description	Source
Use of numerical language	Any language that a caregiver or child uses involving or related to numbers, numerical order, or sorting (e.g., counting, addition/subtraction, more versus less). Any language that involves the use of mathematical knowledge. Reported as percentage of children and adults using specified language.	Observation
Use of spatial language	Any language that addresses spatial concepts including size, features, directions, or shapes. Reported as percentage of children and adults using specified language.	Observation
Use of pattern language	Any language or behavior that addresses repeating patterns in a game or activity (e.g., noticing that when you answer a card correctly, you can roll again in fraction dice in Parkopolis). Reported as percentage of children and adults using/identifying specified language/patterns.	Observation
Use of measurement language	Any language that indicates knowledge of measurement (e.g., using words like “far, long, heavy, tall, and short”). Reported as percentage of children and adults using specified language.	Observation

Note: This signal is applicable only for installations designed to target STEM skills.

Goal: Support an accessible and welcoming public realm

Signal: Accessible

Metric	Description	Source
Distance to PLL site	Percentage of population in the study area that is within a half mile walk of a PLL site.	Census block group data
Neighborhood transit score	Index of transit access, based on number of stops and frequency of transit service in the area. 100 is most transit-served and 0 is least.	Redfin
Walking, biking, and transit access to PLL site	Percentage of respondents who say they walked, biked, or took transit to the site.	Intercept survey
Accessibility for people with special needs	Percentage of respondents who say the site is accessible for people with special needs.	Intercept survey; neighborhood survey

Note: The intercept and neighborhood surveys are tools defined and used in the Reimagining Civic Commons Metrics Framework.

Signal: Inviting

Metric	Description	Source
Perception of the site	Percentage of visitors who think the site makes a good first impression (e.g., cleanliness, beauty, places to sit, and well maintained).	Intercept survey
Reflects neighborhood culture and values	Percentage of visitors who think that the site reflects the culture and values of the neighborhood.	Intercept survey

Goal: Foster a vibrant and inclusive social environment

Signal: Public life

Metric	Description	Source
Site visitorship	Average hourly visitorship of the sites.	Observation
Inclusivity at the PLL site	Percentage of visitors who report living in the neighborhood where the PLL site is located.	Intercept survey
Frequency of visits to the PLL site	Percentage of respondents who say they visit the sites at least weekly.	Intercept survey
Length of average visit to the PLL site	Percentage of site visitors who say they spend at least 30 minutes in the sites when they visit.	Intercept survey

Note: The intercept survey is a tool defined and used in the Reimagining Civic Commons Metrics Framework.

Signal: Mixing on site

Metric	Description	Source
Citywide site visitorship	Percentage of site visitors who report living outside of the neighborhood.	Intercept survey
Opportunities for meeting new people at the site	Percentage of site visitors who say they have made acquaintances in the sites.	Intercept survey

Goal: Nurture civic engagement and a strong sense of community

Signal: Stewardship and advocacy

Metric	Description	Source
Community meetings	Number of community planning meetings held to discuss the design and development of the PLL project.	Organizer documentation
Community engagement	Percentage of volunteers engaged in site-related activities (e.g., meetings, planning, and maintenance, organizing) that are community members.	Organizer documentation
Child and youth engagement	Percentage of volunteers engaged in site-related activities (e.g., meetings, planning, and maintenance) that are under age 18.	Organizer documentation

Goal: Strengthen the economic health and resiliency of neighborhoods

Signal: Neighborhood activity and impact

Metric	Description	Source
Small business impact	Percentage of business owners in immediate area of PLL site who say it has had a positive impact (e.g., has increased their customer base/profits).	Neighborhood survey
Foot traffic	Amount of foot traffic/activity in immediate area of site relative to neighborhood as a whole.	Physical survey or digital collection tools
Home values	Median values of owner-occupied homes in immediate area of site relative to the neighborhood as a whole.	Address level data from Zillow or other sources

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